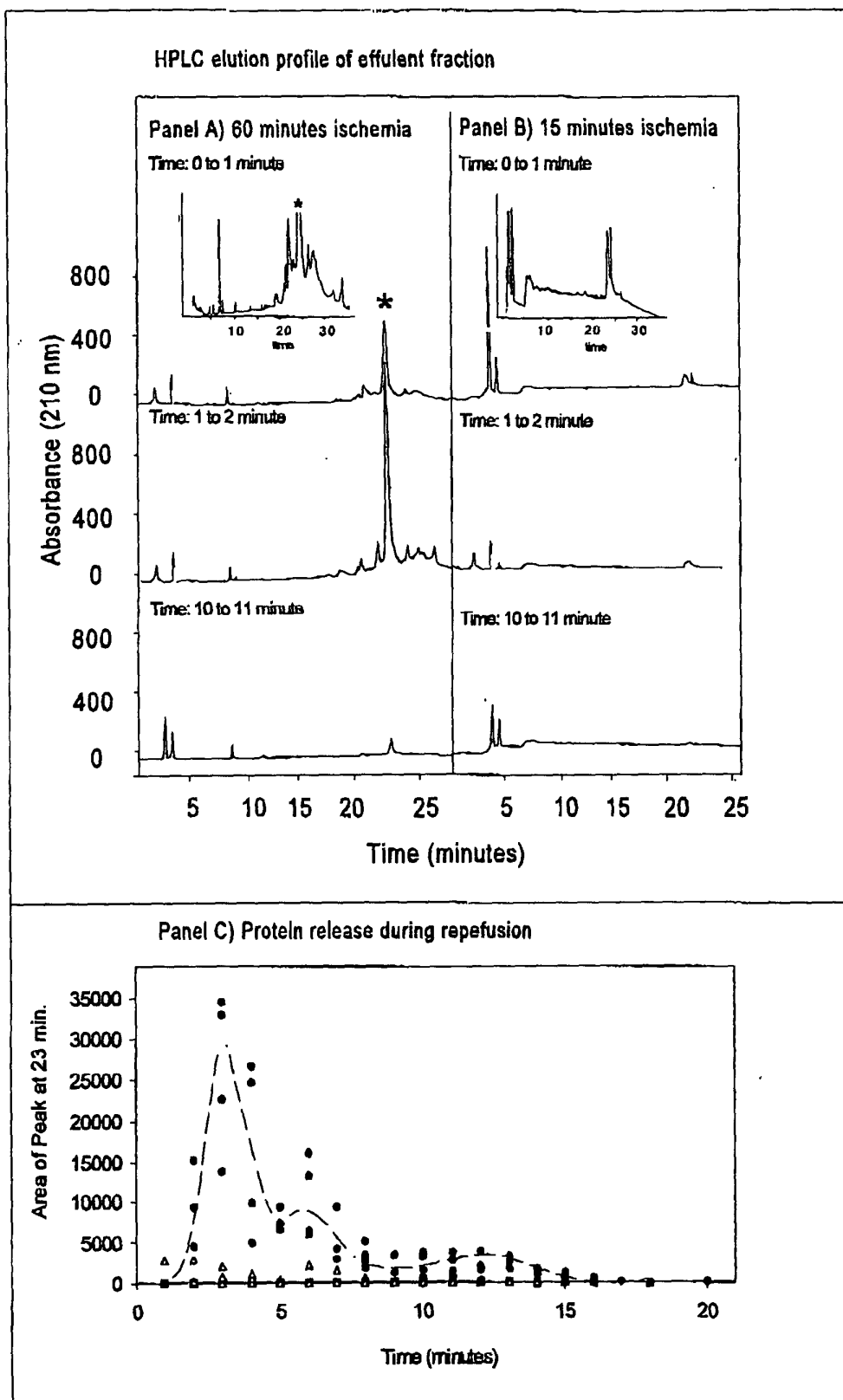
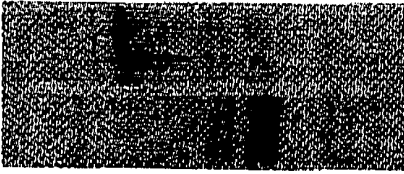

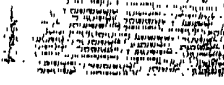
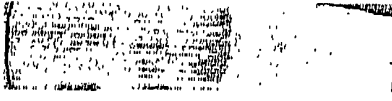




FIGURE 1

FIGURE 2



	A	B	C	D	E	F	
							
	0-2	0-4	0-4	0-4	0-4	0-4	
fraction # (min)	0-2	0-4	0-4	0-4	0-4	0-4	
serum albumin	↑						
triose phosphate isomerase						↓	

07/15 '98 16:55

FIGURE 4

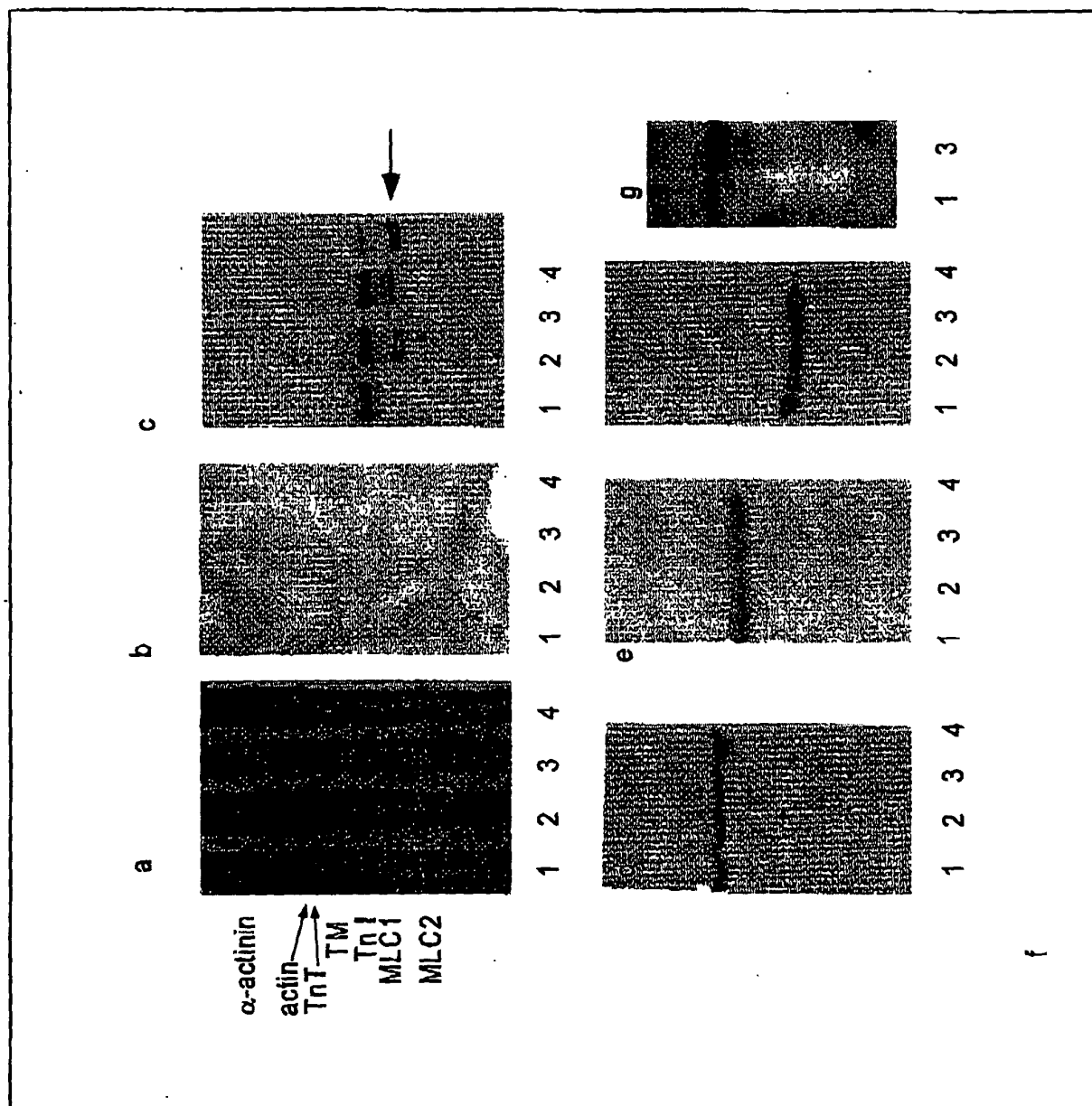
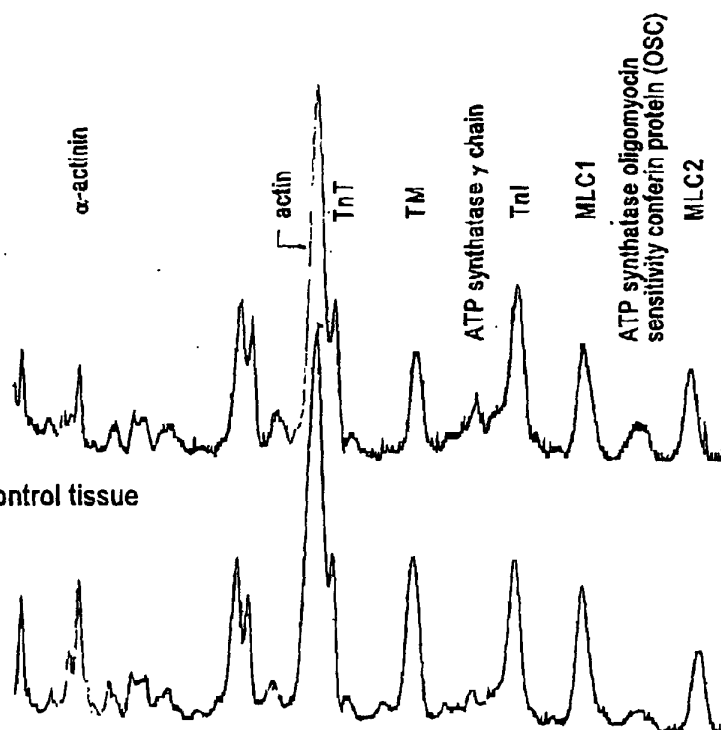


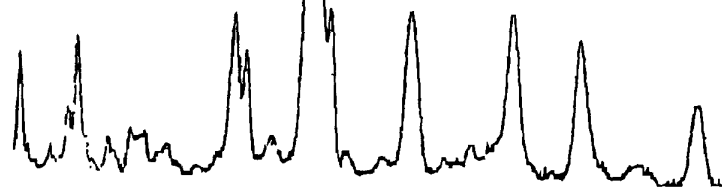
FIGURE 5

Densiometric scan

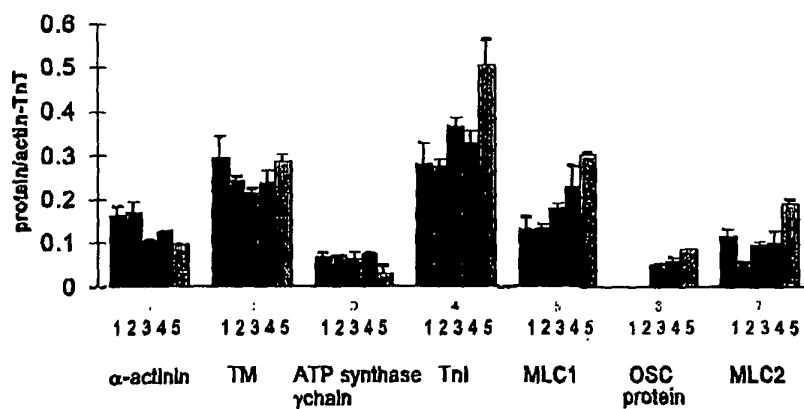
A) 60 min ischemia/45 min reperfusion tissue



B) control tissue



C) Quantitation of protein bands



005740-6853T60

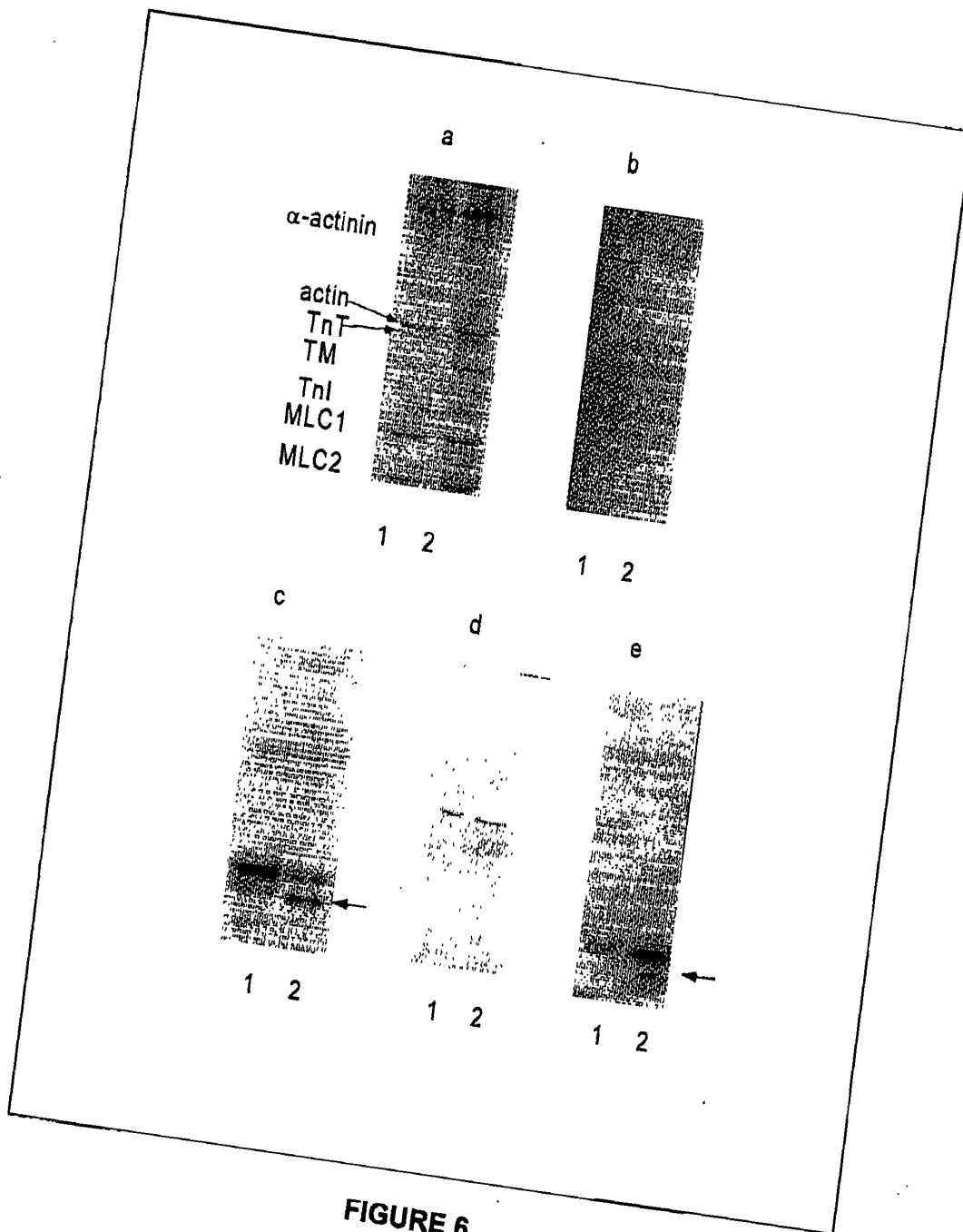


FIGURE 6

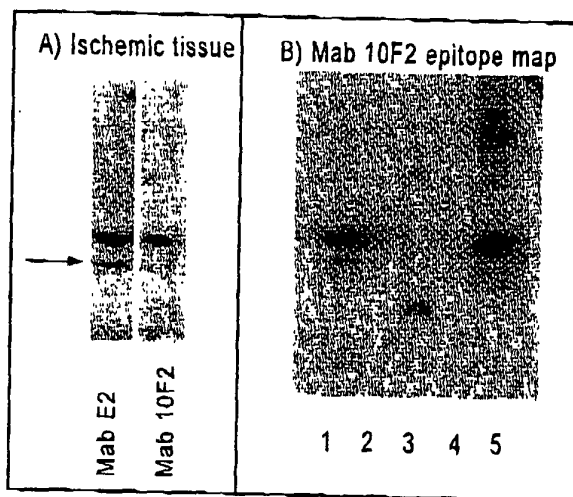


FIGURE 7

07/15/98 18:36 FAX 545 6853 PARTEQ

FIGURE 8

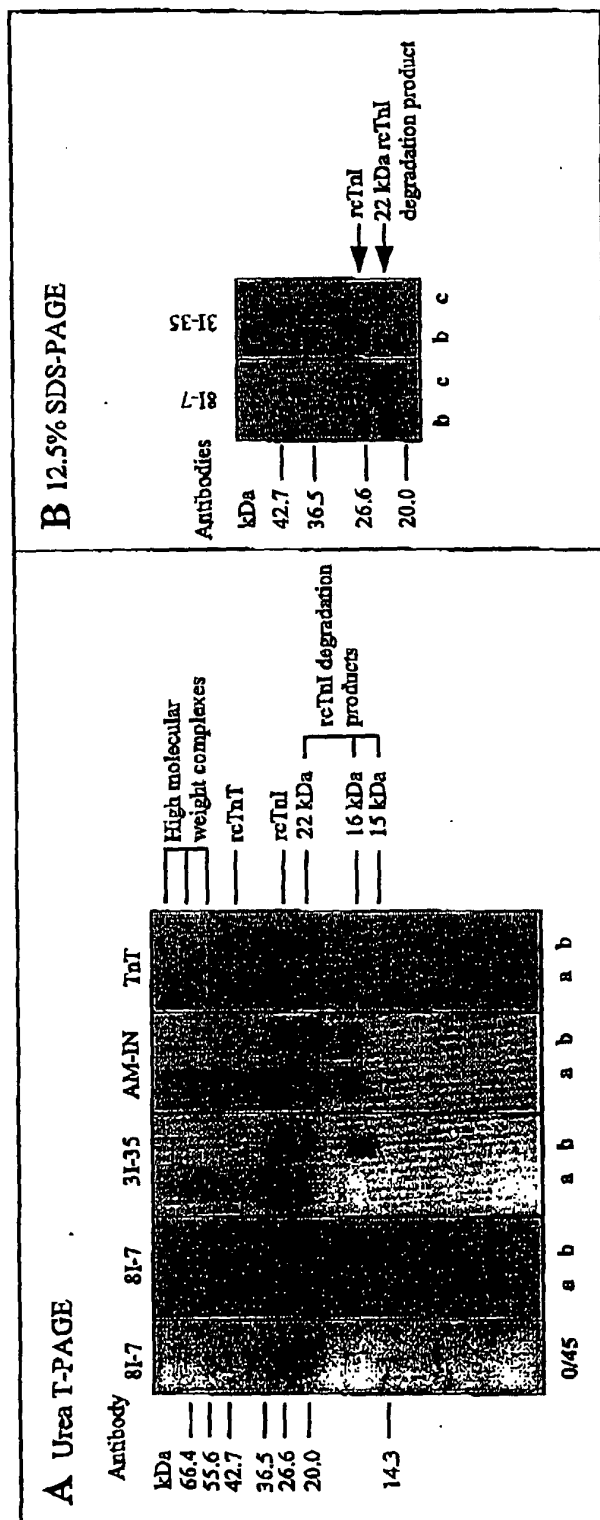




FIGURE 9

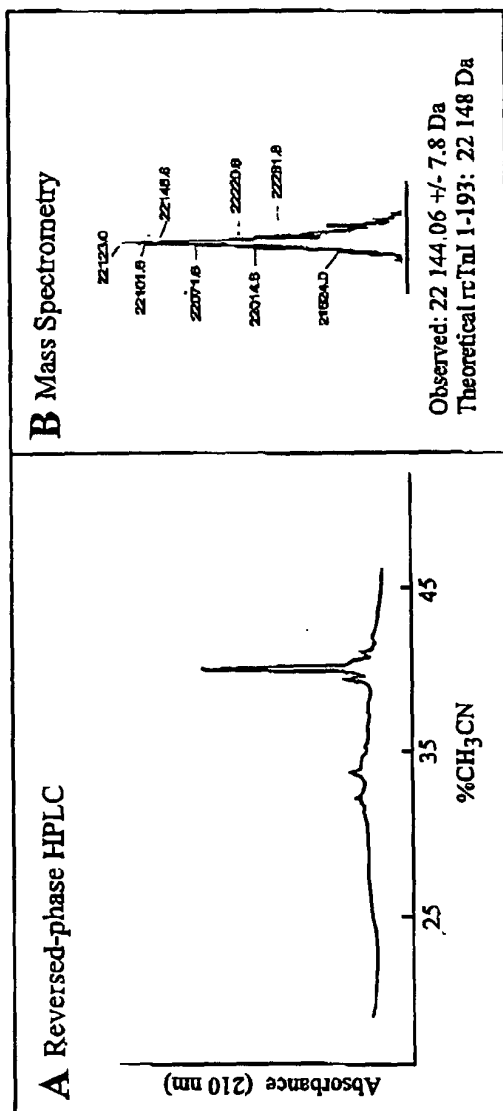
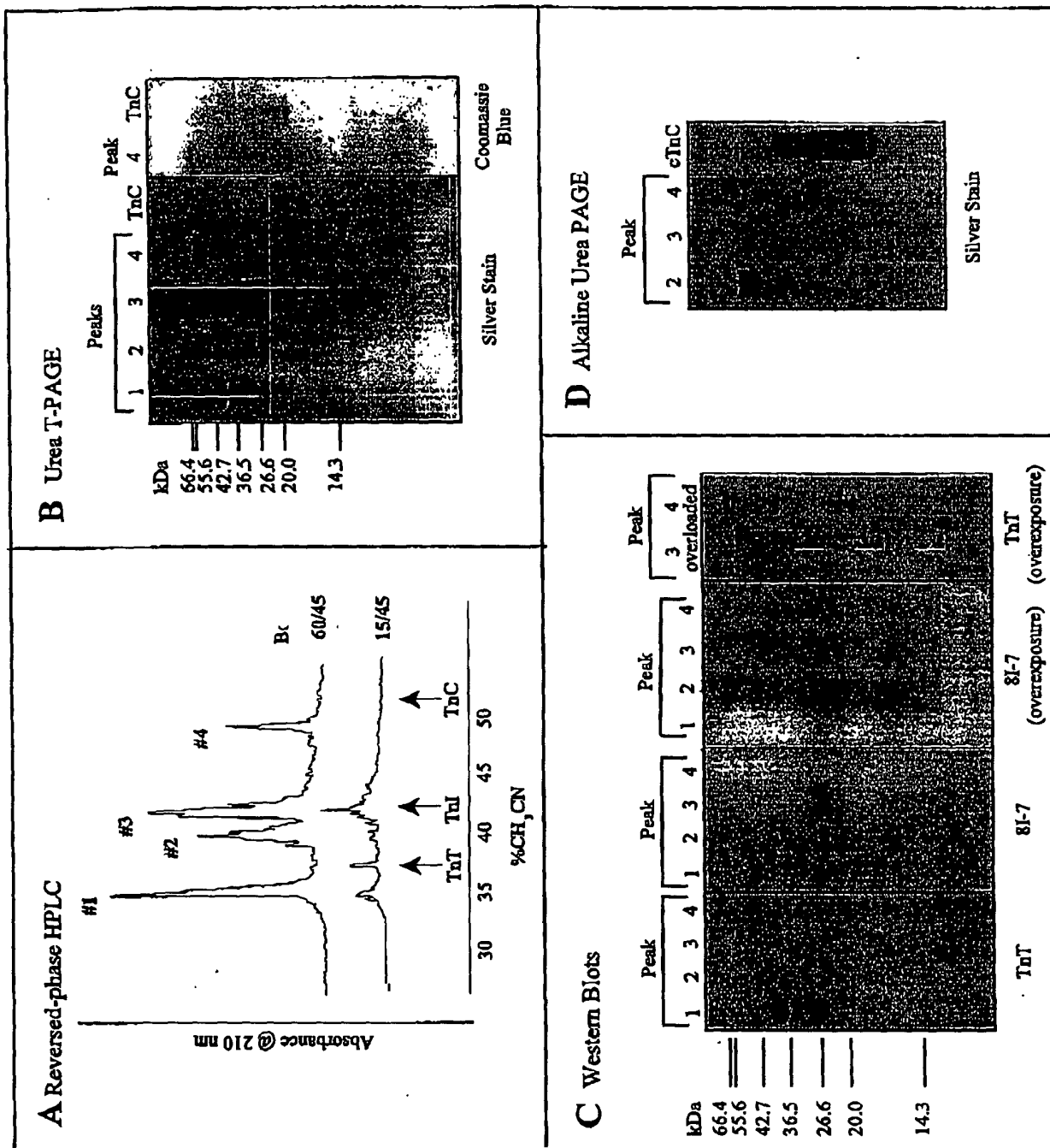


FIGURE 10



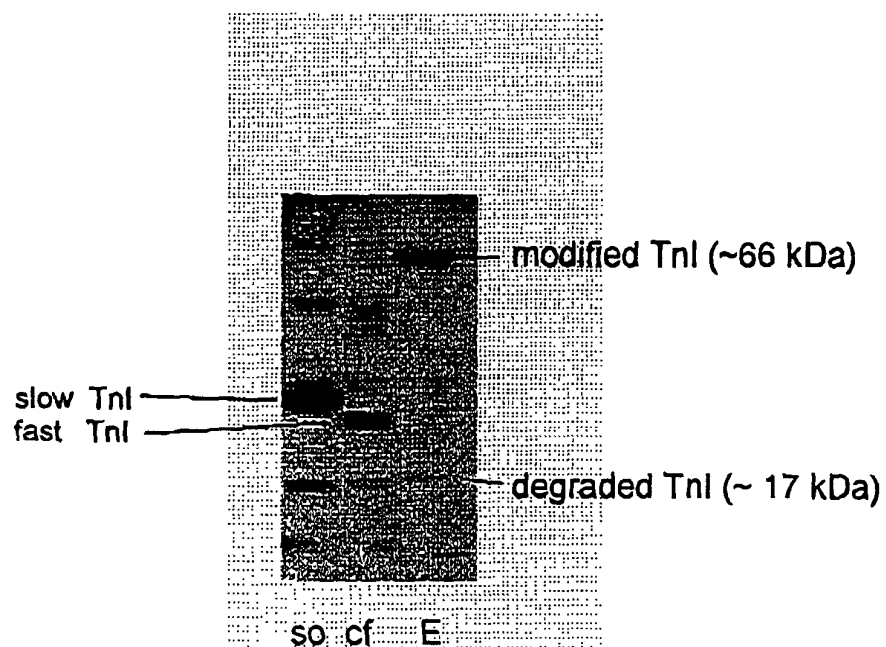


FIGURE 11

065T40-035T40

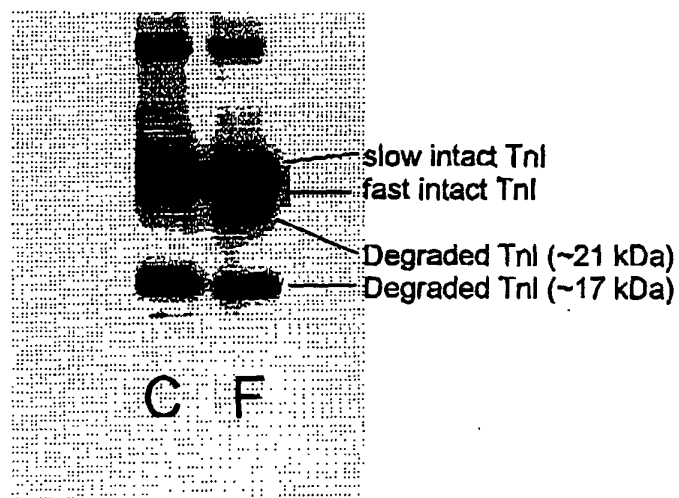


FIGURE 12A

005T20-005T20

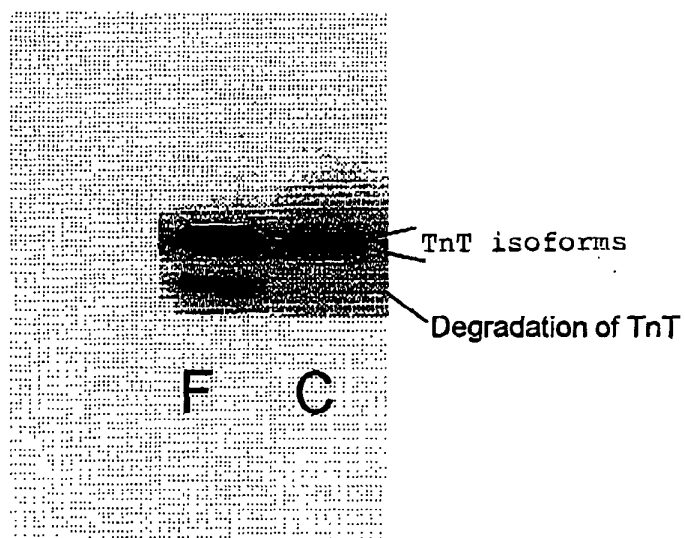


FIGURE 12B

0045589 074598

009120-6853F60

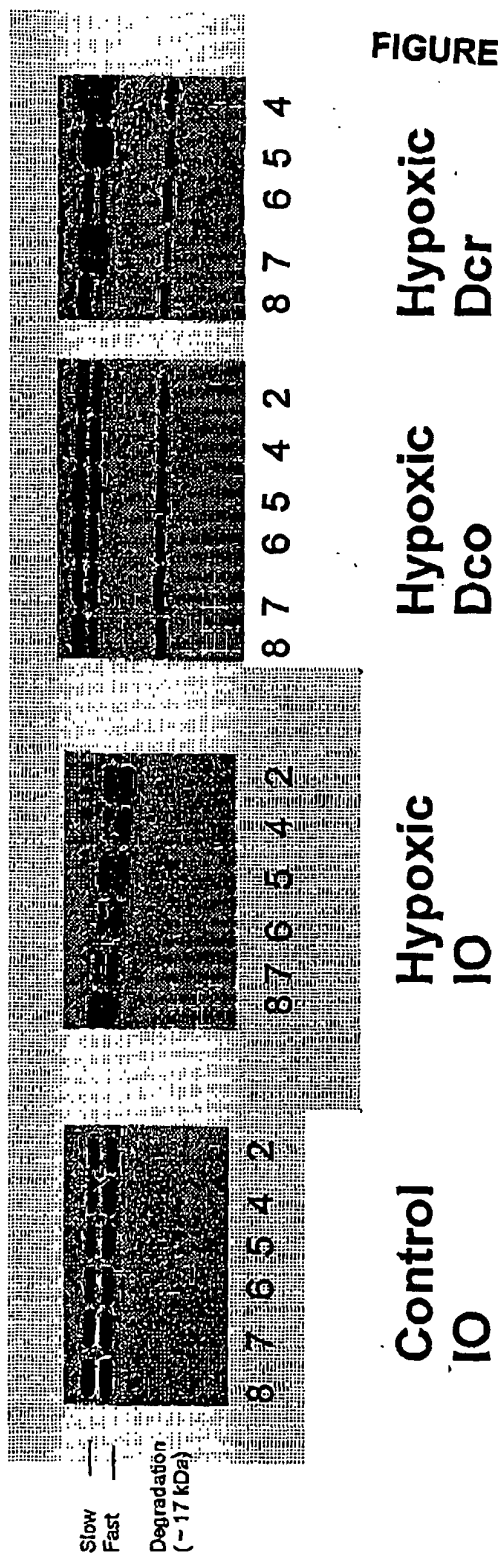


FIGURE 13A

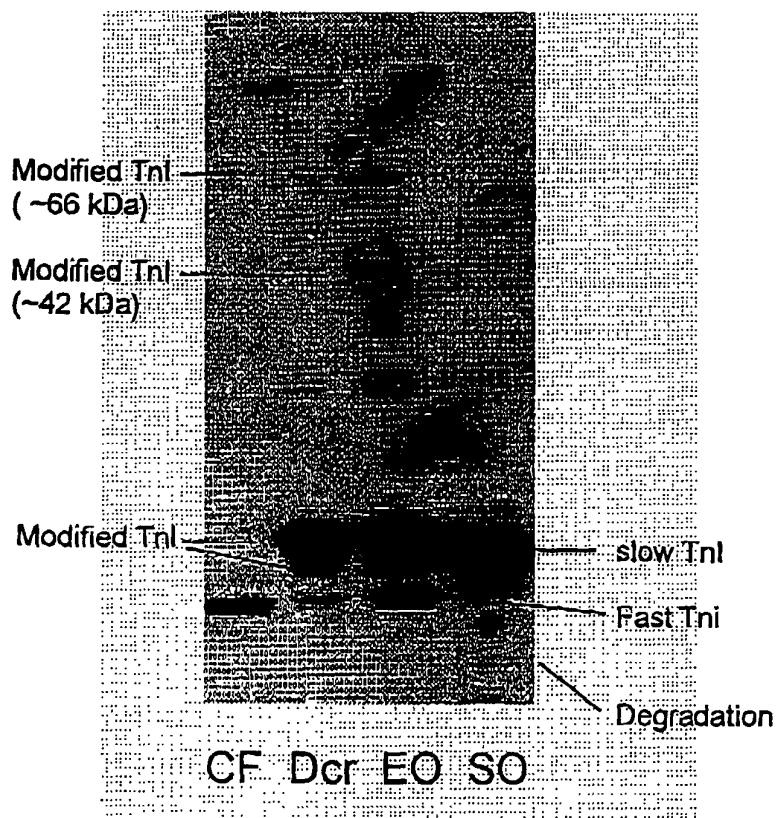


FIGURE 13B

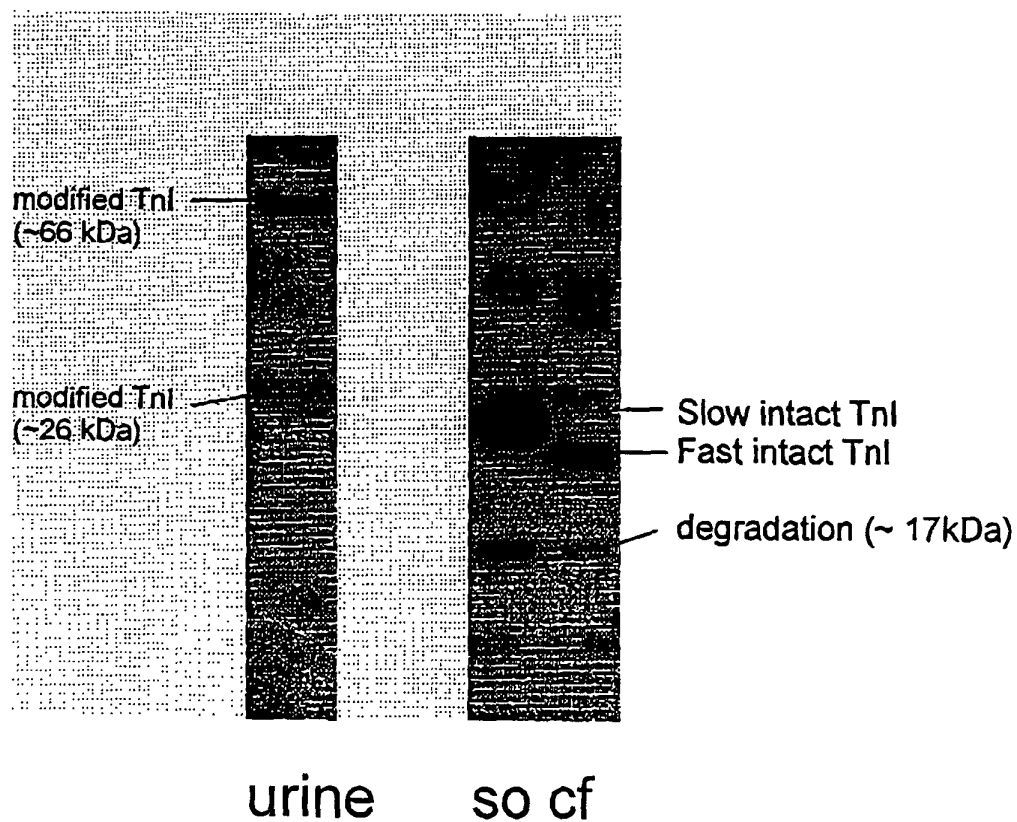


FIGURE 14



FIGURE 15

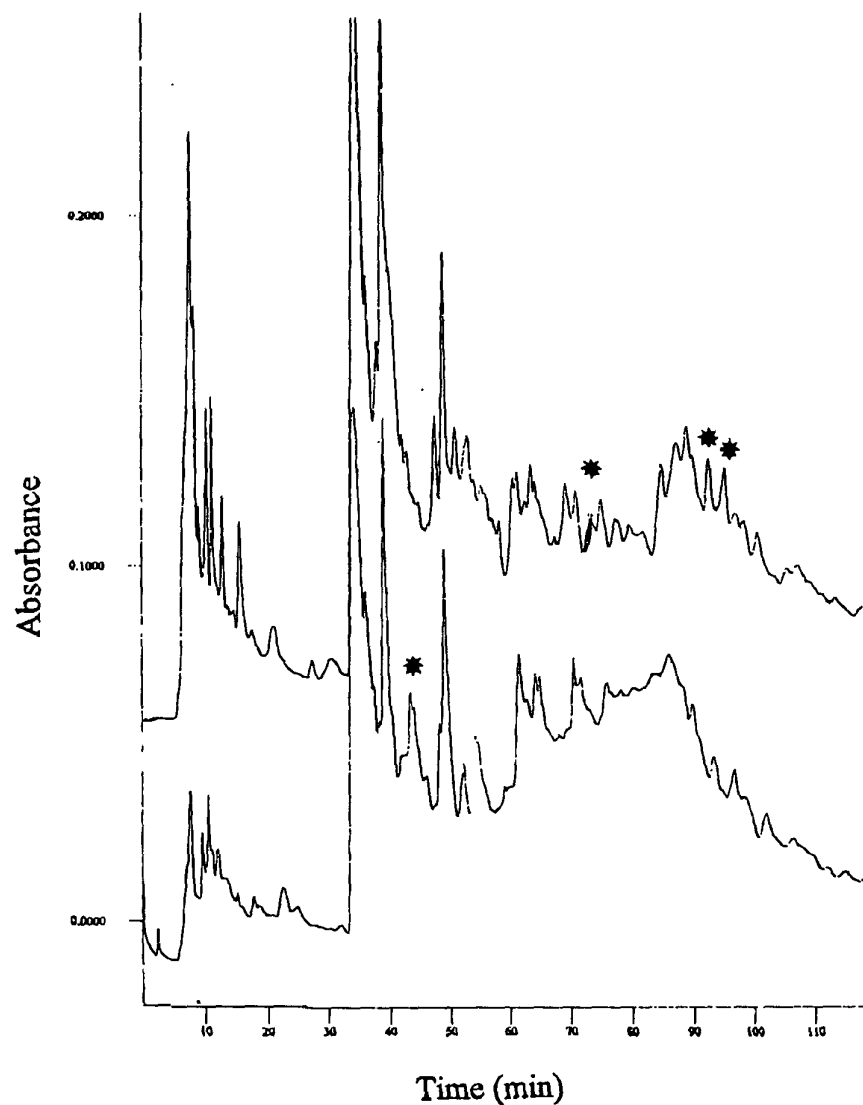
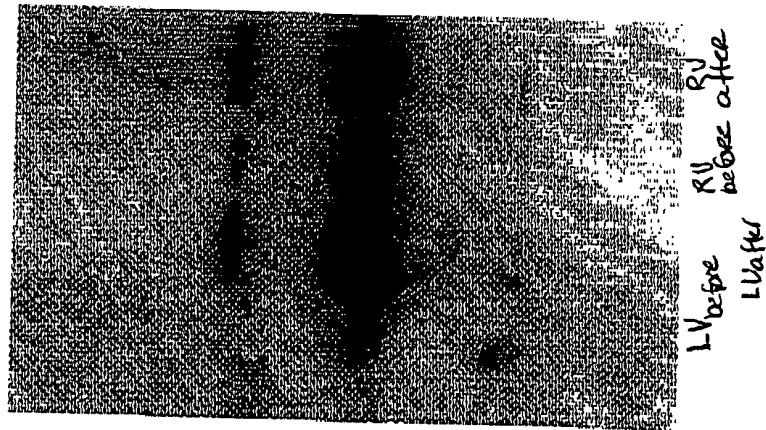


Figure . HPLC analysis of normoxic (bottom trace ) and hypoxic urine (top trace) displayed at 278 nm. Some differences are noted with an asterisk. Each peak represents one or more proteins. The proteins were eluted with a 20 min isocratic wash (100 %A) followed by a linear gradient to 110 min (72% A; 28 % B) followed by another linear gradient to 120 min (20 % A; 80 %B). A-0.05% TFA in HOH; B-0.05% TFA in Acetonitrile.

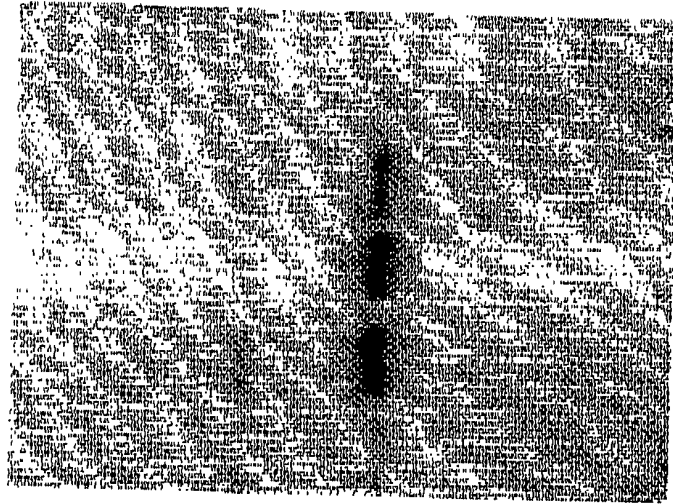
005470-035470

Patient #1



complex →  
intact troponin I →  
degradation products  
of troponin I → →

Patient #2



LV before  
LV after  
RV before  
RV after

FIGURE 16

*Human Troponin I*

cardiac	ADGSSDAARE	PRPAPAPIRR	RSSNYRAYAT	EPHAKKSKI	SASRKLQLKT
slow skeletal	.....	.....	.....	PEVERKPKI	TASRKLKLS
fast skeletal	.....	.....	.....	GDEEKNRA	ITARRQHLKS
cardiac	LLLQIAQEL	EREAEERRGE	KGRALSTRCQ	PLELAGLGFA	ELQDLCRQLH
slow skeletal	IMLAKAKECW	EQEHEEREAE	KVRYLAERIP	TLQTRGLSLS	ALQDLCRELH
fast skeletal	VMLQIAATEL	EKEESRREAE	KONYLAERHCP	PLHIPG.SMS	EVQELCKQLH
cardiac	ARVDKVDEER	YDIEAKVTKN	ITEIADLTQK	IFDLRGKPKR	PTLRRVRISA
slow skeletal	AKVEVVDEER	YDIEAKCLHN	TREIKDLKLK	VMDLRGKPKR	PPLRRVRVSA
fast skeletal	AKIDAABEEK	YDMEVRVQKT	SKELEDMNQK	LFDLRGKPKR	PPLRRVRMSA
cardiac	DAMMQALLGA	RAKESLDLRA	HLKQVKKEDT	EKEN...REV	GDWRKNIDAL
slow skeletal	DAMLRALLGS	KHKVSMDLRA	NLKSVMKKEDT	EKER...PVEV	GDWRKNVEAM
fast skeletal	DAMLKALLGS	KHKVCMDLRA	NLKQVKKEDT	EKERDL.RDV	GDWRKNIEEK
cardiac	SGMEGRKKKF	ES.....			
slow skeletal	SGMEGRKKMF	DAKSPTSQ			
fast skeletal	SGMEGRKKMF	ESES.....			

1. Cardiac.....209 amino acids.....(P19429 - swiss prot identification number)  
VALLINS W.J., *et. al.*  
*FEBS LETT.* 270:57-61, 1990.
2. slow.....186 amino acids....(P19237 - swiss prot identification number)  
WADE R., *et. al.*  
*GENOMICS* 7:346-357, 1990.
3. fast.....181 amino acids....(P48788 - swiss prot identification number)  
ZHU L., *et. al.*  
*BIOCHIM. BIOPHYS. ACTA* 1217:338-340, 1994.

Sequences (1:2) Aligned. Score: 60  
 Sequences (1:3) Aligned. Score: 54  
 Sequences (2:3) Aligned. Score: 56

FIGURE 17A

## Rat Troponin I

Human Cardiac	ADGSSDAARE	PRPAPAPIRR	RS.SNYRAYA	TEPHAKKSK	ISASRKLQK
Rat Cardiac	ADESSDAAGE	PQPAPAPVRR	RSSANYRAYA	TEPHAKKSK	ISASRKLQK
Rat Slow	.....	.....	.....	..PEVERKSK	ITASRKLMLK
Rat Fast	.....	.....	.....	..GDEEKRR	AITARQHLK
Human Cardiac	TLLLQIAKQE	LEREAERRG	EKGRALSTRC	QPLELAGLGF	AELQDLCRQL
Rat Cardiac	TLMLQIAKQE	MEREAEERRG	EKGRVLSTRC	QPLVLDGLGF	EELQDLCRQL
Rat Slow	SLMLAKAKEC	WEQEHEEERA	EKVRYLSERI	PTLQTRGLSL	SALQDLCREL
Rat Fast	SVMLQIAATE	LEKEESRRS	EKQNYLSEHC	PPLHIFGS.M	SEVQELCKQL
Human Cardiac	HARVDKVDEE	RYDIEAKVTK	NITEIADLTQ	KIFDLRGKFK	RPTLRRVRIS
Rat Cardiac	HARVDKVDEE	RYDVEAKVTK	NITEIADLTQ	KIYDLRGKFK	RPTLRRVRIS
Rat Slow	HAKVEVVDDEE	RYDIEAKCLH	NTREIKDLKL	KVLDLRGKFK	RPPLRRVRVS
Rat Fast	HAKIDAAEEE	KYDMEVKVQK	SSKELEDMNQ	KLFDLRGKFK	RPPLRRVRMS
Human Cardiac	ADAMMQALLG	ARAKESLDLR	AHLKQVKKED	TEKEN...RE	VGDWRKNIDA
Rat Cardiac	ADAMMQALLG	TRAKESLDLR	AHLKQVKKED	IEKEN...RE	VGDWRKNIDA
Rat Slow	ADAMLRALLG	SKHKVSMDLR	ANLKS VKKED	TEKER...PVE	VGDWRKNVEA
Rat Fast	ADAMLKALLG	SKHKVCMDLR	ANLKS VKKED	TEKERDL.RD	VGDWRKNISE
Human Cardiac	LSGMEGRKKK	FES.....			
Rat Cardiac	LSGMEGRKKK	FEG.....			
Rat slow	MSGMEGRKKM	FDAAKSPTLQ			
Rat Fast	KSGMEGRKKM	FESES.....			

1. Human cardiac TnI....209 amino acids ( P19429 - swiss prot identification number)  
VALLINS W.J., *et. al.*  
*FEBS LETT.* 270:57-61,1990.
2. Rat Cardiac TnI.....210 amino acids ( P23693 - swiss prot identification number)  
MURPHY A.M., *et al.*  
*BIOCHEMISTRY* 30:707-712, 1991.
3. Rat slow TnI.....186 amino acids ( P13413 - swiss prot identification number)  
KOPPE R.I., *et. al.*  
*J. BIOL. CHEM.* 264:14327-14333, 1989.
4. Rat fast TnI.....181 amino acids ( P27768 - swiss prot identification number)  
GRAVEL M., HASTINGS K.E.;  
SUBMITTED (XXX-1991) TO EMBL/GENBANK/DBJ DATA BANKS.

Sequences (1:2) Aligned. Score: 92  
 Sequences (1:3) Aligned. Score: 61  
 Sequences (1:4) Aligned. Score: 55  
 Sequences (2:3) Aligned. Score: 60  
 Sequences (2:4) Aligned. Score: 54  
 Sequences (3:4) Aligned. Score: 56

FIGURE 17B

*Human Troponin T*

Cardiac	SDIEEVVEEY	EEEEQEAAV	EEQEAAEED	AEAEAEETET	RAEEDEEEE
Slow skeletal	SDTEE..QEY	EEQPEEEAA	EE.....EEE	APEE..PEP.	VAE.....
fast skeletal	SD.EE.VEQV	EEQYEEEEEA	QE.....EEE	VQED..TAE	DAE.....
Cardiac	AKEAEDGPME	ESKPKP.RSF	MPNLVPPKIP	DGERVDFDDI	HRKRMEKDLN
Slow skeletal	.....PEE	E.RPKPSRPV	VPPLIPPPIP	EGERVDFDDI	HRKRMEKDLL
fast skeletal	.....EE	K..PRP....	..KLTAIPKIP	EGEKVDFDDI	QKKRQNKDLM
Cardiac	ELQALIEAHF	ENRKKEEEL	VSLKDRIER	RAERAEQQRI	RNEREKERQN
Slow skeletal	ELQTLIDVHF	EQRKKEEEL	VALKERIER	RSEAEQQRF	RTEKERERQA
fast skeletal	ELQALIDSHF	EARKKEEEL	VALKERIEKR	RAERAEQQRI	RAEKERERQN
Cardiac	RLAEERARRE	EEENRRKAED	EARKKKALSN	M.MHFGGYIQ	KQAQTERKSG
Slow skeletal	KLAEEMRKE	EEEAKKRAED	DAKKKKVLSN	MGAHFGGYLV	KAEQK.R..G
fast skeletal	RLAEERARRE	EEDAKRRAED	DLKKKKALSS	MGANYSSYLA	KADQK.R..G
Cardiac	KRQTEREKKK	KILAERRKVL	AIDHLNEDQL	R.....	.....EKA
Slow skeletal	KRQTGREMKV	RILSERKKPL	DIDYMGEEQL	RARSALPPS	QPSCPAREKA
fast skeletal	KKQTAREMKK	KILAERRKPL	NIDHLGEDKL	R.....	.....DKA
Cardiac	KELWQSIYNL	EAEKFDLQEK	FKQQKYEINV	LRNRINDNQK	VSKTRG...K
Slow skeletal	QELSDWIHQL	BSEKFDLMAK	LKQQKYEINV	LYNRISHAQK	FRKGAG...K
fast skeletal	KELWETLHQL	EIDKFEFGKEK	LKRQKYDITT	LRSRIDQAQK	HSKKAGTPAK
Cardiac	AKVTGRWK				
Slow skeletal	GRVGGRWK				
fast skeletal	GKVGGRWK				

Consensus length = 308

1. Cardiac.....287 amino acids.....(P45379 - swiss prot identification number)  
MBSNARD L., *et. al.*  
*FEBS LETT.* 328:139-144, 1993.
2. slow.....277 amino acids.....(P13805 - swiss prot identification number)  
GAHLMANN R., *et. al.*  
*J. BIOL. CHEM.* 262:16122-16126, 1987.
3. fast.....257 amino acids.....(P45378 - swiss prot identification number)  
WU Q.-L., *et. al.*  
*DNA CELL BIOL.* 13:217-233, 1994.

Sequences (1:2) Aligned. Score: 58  
 Sequences (1:3) Aligned. Score: 61  
 Sequences (2:3) Aligned. Score: 63

FIGURE 17C

## Rat Troponin T

Human Cardiac	SDIEEVVEY EEEQEE... ..AA VEEQEEAAEE DAEAEAETEE
Rat Cardiac	SDAEEVVVEY EEEQEEEDWS EEEDEQEBA VEEDGEAEP DPEGEAEAE
Rat Fast sk	..SDEETE QV EEQYEE... ..E E.....AQ. ....EEE
Human Cardiac	TRAEEDEEEE EAKEAEDGPM EESKPKP.RS FMPNLVPPKI PDGERVDFDD
Rat Cardiac	DKAEEVGPDE EARDADGVP EDSKPKPSRL FMPNLVPPKI PDGERVDFDD
Rat Fast sk	.VQEEAPEPE EVQEE... ..KPRP... ..KLTA PKI PEGEKVDFDD
Human Cardiac	IHRKRMEKDL NELQALIEAH FENRKKEEEE LVSLKDRIER RRAERAEQQR
Rat Cardiac	IHRKRMEKDL NELQTLIEAH FENRKKEEEE LISLKDRIEK RRAERAEQQR
Rat Fast sk	IQKKRQNKDL MELQALIDSH FEARKKEEEE LIALKERIEK RRAERAEQQR
Human Cardiac	IRNEREKERQ NRLAEERARR EEEENRRKAE DEARKKKALS NMMHFGGYIQ
Rat Cardiac	IRNEREKERQ NRLAEERARR EEEENRRKAE DEARKKKALS NMMHFGGYIQ
Rat Fast sk	IRAEKERERQ NRLAEERARR EEDAKRRAE DDLKKKKALS SMG..ANYSS
Human Cardiac	KQAQTERKSG KRQTEREKKK KILAERRKVL AIDHLNEDQL REKAKELWQS
Rat Cardiac	K.AQTERKSG KRQTEREKKK KILAERRKVL AIDHLNEDQL REKAKELWQS
Rat Fast sk	YLAKADQKRG KKQTAREMKK KILAERRKPL NIDHLSDDKL RDKAKELWDT
Human Cardiac	IYNLEAEKFD LQEKFKQOKY EINVLRNRIN DNQKVSCTR... KAKVTGR
Rat Cardiac	IHNLEAEKFD LQEKFKQOKY EINVLRNRIN DNQKVSCTR... KAKVTGR
Rat Fast sk	LYQLETDKFE FGEKLKQKY DITTLRSRID QAQKHSKKAG ATAKGVGGR
Human Cardiac	WK
Rat Cardiac	WK
Rat Fast sk	WK

1. Human cardiac TnT....287 amino acids ( P45379 - swiss prot identification number)  
MESNARD L., *et. al.*  
*FEBS LETT.* 328:139-144, 1993.
2. Rat Cardiac TnT.....298 amino acids ( P50753 - swiss prot identification number)  
JIN J.-P., *et. al.*  
*J. BIOL. CHEM.* 264:14471-14477, 1989.
3. Rat fast TnT.....258 amino acids ( P09739 - swiss prot identification number)  
BREITBART R.E., *et. al.*  
*J. MOL. BIOL.* 188:313-324, 1986.

Sequences (1:2) Aligned. Score: 88  
Sequences (1:3) Aligned. Score: 60  
Sequences (2:3) Aligned. Score: 59

Consensus length = 302

FIGURE 17D